Supporting Information

Equilibrium protein adsorption on nanometric vegetable-oil hybrid film/water interface using neutron reflectometry

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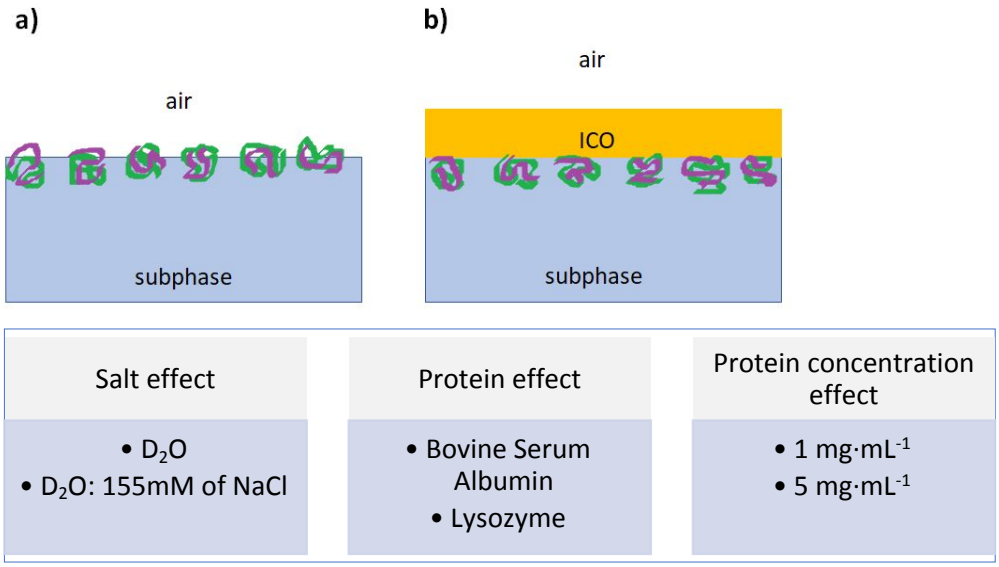

Figure S1: Schematic representation of proteins adsorbed at the air-water (a) and the ICO-water (b) interface. In the lower panel, the different cases studied are shown: the effect of salt, protein type and protein concentration.

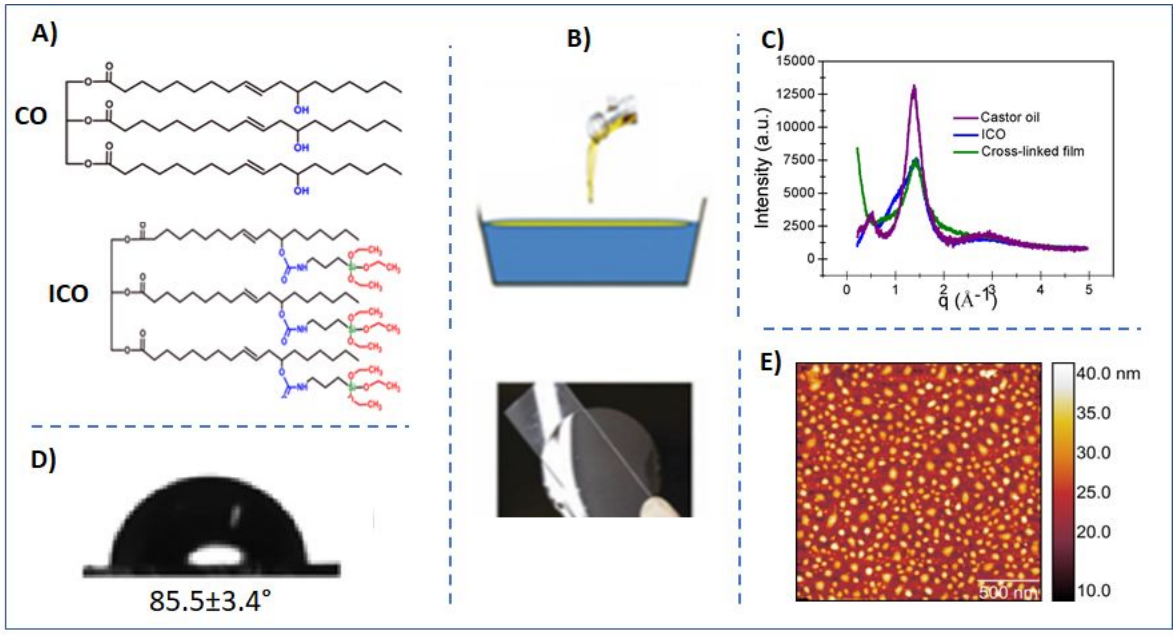

Figure S2: (a) Chemical structure of CO and ICO (b) transparent cross-linked film after spreading 1g of ICO on water (surface area of 50.3 cm^2), (c) wide angle X-Ray scattering spectra for castor oil, ICO and cross-linked film, (d) contact angle of cross-linked film and (e) atomic force microscopy image of BSA on cross-linked film. Data are taken from references [7, 10] and are adapted with permission.

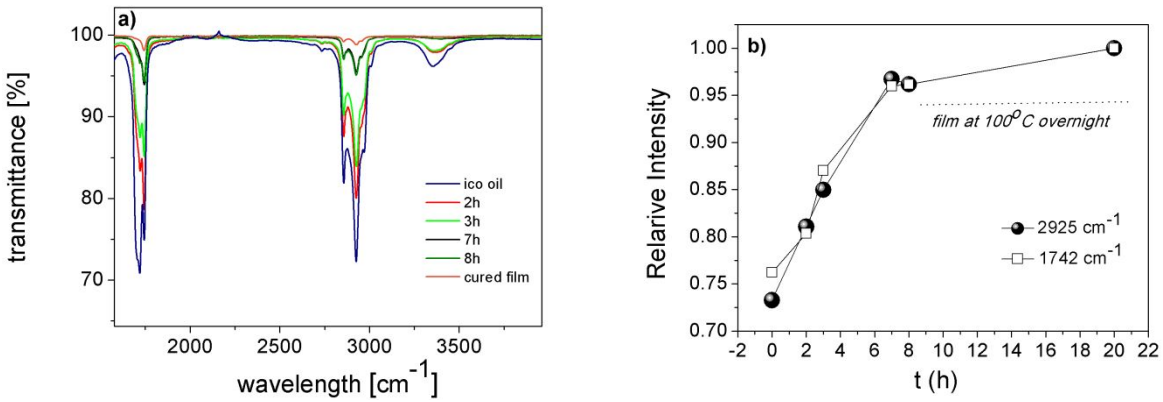

Figure S3: ATR spectra plotted as a) transmittance versus wavelength and b) relative intensity at 2925 cm^{-1} and 1742 cm^{-1} as a function of time. The ICO films were spin-coated onto glass plates at room temperature (100-200 nm of thickness).

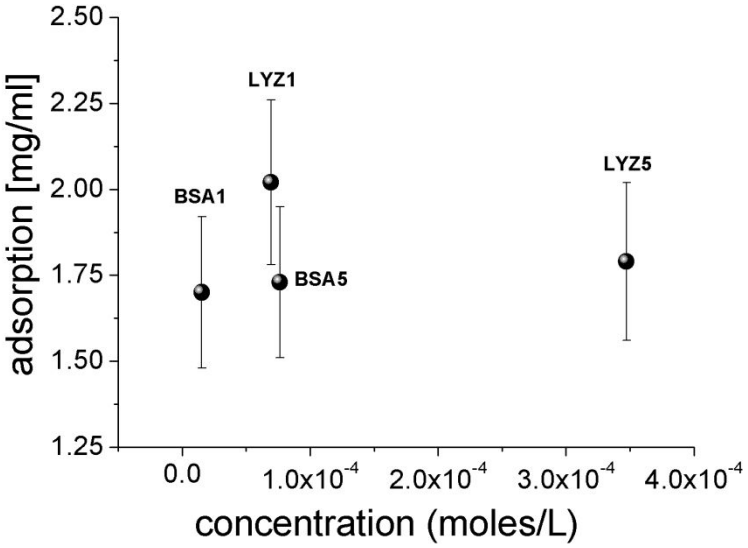

Figure S4: Protein adsorption of BSA (1mg/ml), BSA (5mg/ml), lysozyme (1mg/ml) and lysozyme (5mg/ml) at the ICO-water interface in presence of salt, as a function of their bulk molar concentration.